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NOTEWORTHY LECIDEACEAE FROM KNOX COUNTY, MAINE

G. K. MERRILL

The Lichens mentioned in this list, with one exception, were collected within ten miles of the City of Rockland. The determinations are based on careful microscopical examinations of the so-called fructification, and comparison with authentic specimens from European sources. Descriptions are given for those forms believed to be new to North America or the United States, and for others so far undescribed in any of our publications.

BIATORA COARCTATA var. **ORNATA** (Sommerf.) Th. Fr. Lich. Arctoi p. 190. (1860.)

Thallus indeterminate in our specimens, sordid gray, verruculose, marked at the circumference by sub-effigurate, irregularly-crenate squamaceous extensions. Apothecia small, concave or at length convex, the disk reddish-brown, with a rather tumid lighter colored margin. Spores 8, ellipsoid, simple, $22-27 \times 12 \mu$, in ventricose asci amidst distinct but slender paraphyses.

On slaty-schist, Mt. Megunticook, Camden. I know of no other record for the United States.

BIATORA ULIGINOSA var. **FULIGINEA** (Ach.) Fr. Lich. Eur. Ref. p. 275. (1831.)

On decaying logs; Warren.

This is a lignicoline condition of *B. uliginosa*, and, quoting from Fries, "crusto cum hypothallo confusa leprosa-granulosa fusco-nigrescens" exactly describes the thallus. There is little in the apothecia or spores to distinguish the variety from the species. The apothecia are more scattered and lighter in color, and the spores are said to be smaller, but my experience fails to verify the latter. Hypothallus blackish rather than black.

Dr. Fink found the plant in Minnesota on an old *Polyporus*, and it is reported from Newfoundland in Macoun's list of Canadian Lichens.

Biatora dilutiuscula (Nyl.) comb. nov.

Lecidea dilutiuscula Nyl. Flora 1876, p. 308.

Thallus effuse, continuous, smooth, grayish. Apothecia small, sessile, the disk plane with a thin concolorous margin, or convex and immarginate, waxy, livid, or yellowish-flesh colored. Spores 8, ellipsoid, hyaline, $7-10 \times 3.5-4.5 \mu$, wholly without color internally.

On rocks in the bed of a roadside rivulet, associated with *Lecidea contigua hydrophila* and other species, Camden.

Nylander in Lich. Env. Paris, p. 93, gives *Biatora Bauschiana* Koerb. as a synonym, and in Leighton's Mon. British Lich. Pt. II, p. 98, the var. *infidula* of *Lecidea sylvicola* is made equivalent. Our plant is not in agreement with either, but is entirely in accord with European examples of the species from France and Austria. So far as macroscopic examination permits judgment, the apothecia of all the species associated with our plant arise from the same thallus.

Unreported previously from America.

BIATORA ATRORUBENS (Fr.) Merl. Lich. Exs. No. 206. (1911.)

Lecidea parasema forma *atrorubens* (Fr.) Arn. Exs. No. 230.

Thallus small (-3 cm.) effuse, minutely granulose, ashy or ashy-green.

Apothecia small, sessile, crowded, entirely concealing the thallus at the centre, more or less convex, reddish-brown, the margin inconspicuous. Spores 8, oblong-ellipsoid, $8-10 \times 5 \mu$, hypothecium colorless, paraphyses distinct, epithecium infusate, asci ventricose.

On willow trunks, Rockland. Also detected in material from Nova Scotia.

Biatora (*Catillaria*) **Hochstetteri** (Koerb.) comb. nov.

Catillaria Hochstetteri Koerb. Parerga Lich. p. 195. (1865.)

Thallus thin, smooth or slightly irregular, brownish or ashy-brown, the color modified by the hypothallus. Apothecia sessile, plane, opaque, black, with a thin entire margin. Spores 8, ellipsoid, but with the terminations more or less acute, bilocular, colorless, $18-22 \times 10-11 \mu$, hypothecium brown, paraphyses distinct, diffuent, slender, the tips blackish or greenish.

On shaly rocks in a pasture, Rockport.

Apothecia more lecidii-form than biatorine, but the exciple is not carbonaceous.

New to America.

Biatora (*Catillaria*) **grossa** (Pers., Nyl.) comb. nov.

Lecidea grossa Pers. in herb. Moug. et Nyl. Prodr. p. 139. (1857.)

Heterothecium grossum of Tuckerman Syn. Pt. II, p. 54.

On trunks of willows, Warren.

Reported from Newfoundland; Grand Manan Is., N. B.; Anticosti Is.; Cape Breton Is.; and the Gaspé region of Quebec, the plant seems known only in the United States as here mentioned, and from one station in Nebraska, T. A. Williams.

BIATORA (*Bilimbia*) **TRISEPTA** Naeg. ex Müller in Mem. Soc. Phys. Hist. Nat. Genev. 16: 404. (1862.)

Thallus effuse, granulose, grayish or dark. Apothecia minute (0.05 mm.) scattered or congregated, convex, black, the margin excluded. Spores 8, fusiform, three-septate, $19-24 \times 3-5 \mu$, paraphyses concrete, hypothecium colorless, asci ventricose.

On a pebble by the roadside, Camden.

Reported from Labrador by Arnold, and from New Bedford and Quincy, Mass., by Henry Willey.

BIATORA (*Bilimbia*) **SABULETORUM** var. **OBSCURATA** (Sommerf.) A. L. Sm. Mon. Brit. Lich. Pt. II, p. 143. (1911.)

The species is equivalent to *B. hypnophila* (Turn.) Tuck. of Tuckerman's Synopsis.

Thallus minutely rugose-granulose, pale ashy to white. Apothecia medium, numerous, at first concave or plane with a rather thick margin, but ultimately convex and immarginate, brown, reddish-brown, dark brown or sometimes black. Spores 8, ellipsoid or sub-fusiform three-septate, $17-30 \times 5-9 \mu$, paraphyses distinct, sub-coherent, tips yellowish-brown, hypothecium brownish, I + bluish > violet or wine-red.

On decayed wood, Warren.

Reported from Labrador, Newfoundland, Greenland and Alaska under various synonyms.

There is little to distinguish the variety from the species, the more obvious characters of separation consisting of constantly three-septate spores, larger and darker apothecia and their greater abundance.

LECIDEA PRASINULA (Wedd.) B. de Lesd. in Not. Lichenolog. No. VIII, Bull. Soc. Bot. Fr. p. 421. (1908.)

Lecidea parasema var. *prasinula* Wedd. Lich. "des laves l'Agde," p. 19.

Thallus effuse, irregular in outline and extensively spreading, granulose or granulose-areolate, sordid-yellowish or greenish, K + reddish-orange. Apothecia small, impressed, black, with a slightly elevated margin. Spores 8, ellipsoid, simple, 10-14 x 8-9 μ , hymenium colorless, hypothecium brown, tips of the paraphyses greenish.

On shaded rocks, walls and ledges, Rockland, Rockport, and So. Thomaston. Often found but not common. New to America.

LECIDEA PRASINULA forma MAJOR B. de Lesd. in Not. Lichenolog. No. XIV.

Bull. Soc. Bot. Fr. p. 660. (1911.)

Thallus thicker than in the species, but similarly granulose-areolate and sometimes diffract, yellowish or greenish and somewhat sorediose, reaction as in the species. Apothecia relatively large, plane or convex, with a more or less flexuous border. Spores 8, ovoid-ellipsoid, simple, 11-15 x 6.5-9 μ , the other internal characters as in the species.

On granite, So. Thomaston.

The apothecia are very similar to those of *L. platycarpa*, and the affinities of both species and form are with that species. New to America.

Description from the co-type in my herbarium.

LECIDEA SOREDIZA Nyl. in Bull. Soc. Linn. Norm. ser. 2. 6: 292. (1872.)

Thallus determinate, ashy-greenish, smooth, rimulose, besprinkled with rounded, scattered or crowded, flavescent soredia, K +, I + bluish in our specimens. Apothecia medium or large, scattered, at first plane, then convex, sometimes umbonate or proliferous, rounded or flexuous, the margin slightly elevated or excluded, disk black, often faintly pruinose. Spores 8, ovoid or ellipsoid, simple, 15-22 x 7-9 μ , hypothecium thick and black, paraphyses distinct, coherent, tips dark, whole hymenium with I + bluish.

On mica-schist in shaded places, Mt. Megunticook, Camden.

Very near *L. contigua* but sufficiently different to be a marked plant. Crombie gives the reaction as K—, C—. The hypothallus black and conspicuous.

Reported from Newfoundland in Macoun's list of Canadian Lichens, but unrecorded from the United States.

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